

AMENDMENTS TO THE CLAIMS

1. (currently amended) ~~Use of a substance, which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance, which stimulates release or potentiates the activity of endogenous hGH, for the manufacture of a medicament~~ A method for the treatment and/or prevention of a Parkinsonism-Plus Syndrome comprising administering to a person in need thereof a substance selected from the group consisting of:

- (a) human growth hormone;
- (b) a variant of (a) which has at least 70% sequence identity thereto and which has agonistic activity on the hGH receptor;
- (c) a variant of (a) having agonistic activity on the hGH receptor and which is encoded by a DNA sequence which hybridizes to the complement of the native DNA sequence encoding (a);
- (d) a salt of (a), (b) or (c);
- (e) human growth hormone releasing hormone (hGHRH);
- (f) a variant of (e) which has at least 70% sequence identity thereto and which has agonistic activity on the hGHRH receptor;
- (g) a variant of (e) having agonistic activity on the hGHRH receptor and which is encoded by a DNA sequence which hybridizes to the complement of the native DNA sequence encoding (e) under moderately stringent conditions;
- (h) a salt of (e), (f) or (g);
- (i) insulin-like growth factor (IGF);
- (j) a nucleic acid encoding any one of (a)-(i); and
- (k) combinations thereof.

2. (currently amended) ~~Use according to~~ The method of claim 1, wherein the Parkinsonism-Plus Syndrome is selected from the group consisting of Progressive Supranuclear Palsy (PSP), Multiple System Atrophy (MSA), Parkinson's-amyotrophic lateral sclerosis-dementia of Guam, Generalized Lewy body disease, Corticobasal ganglionic degeneration, Alzheimer's/Parkinson's overlap syndrome, Huntington's disease: rigid variant, Hallervorden-Spatz disease, and Gerstmann-Strausler syndrome.

3. (canceled)
4. (canceled)
5. (currently amended) The ~~method of claim 1 use according to any of the preceding claims~~, wherein the substance is a naturally-occurring human growth hormone.
6. (currently amended) The ~~method of claim 1 use according to any of claims 1 to 4~~, wherein the substance is recombinant human growth hormone.
7. (canceled)
8. (currently amended) The ~~use according to method of claim 71~~, wherein the ~~variant C-terminal fragment~~ comprises amino acids 177 to 191 of hGH.
9. (currently amended) The ~~method of claim 1 use according to claims 4 or 6~~, wherein the ~~variant of human growth hormone~~ is methionyl human growth hormone ~~which has an additional methionine residue at the N terminus of human growth hormone~~.
10. (currently amended) The ~~method of claim 1 use according to claim 4 to 6~~, wherein the ~~fragment of human growth hormone variant~~ is a ~~human growth hormone~~ lacking the 15 amino acid residues from Glu32 to Glu46 of hGH.
11. (currently amended) The ~~method of claim 1 use according to claim 4~~, wherein the ~~fragment variant~~ is a truncated human growth hormone lacking the first eight amino acid residues at the N-terminus.
12. (currently amended) The ~~method of claim 1 use according to claim 4~~, wherein the ~~fragment variant~~ is a truncated human growth hormone lacking the first 13 amino acid residues at the N-terminus.
13. (currently amended) The ~~method of claim 1 use according to claim 4~~, wherein the ~~functional derivativesubstance~~ comprises a dimer of human growth hormone selected from the group consisting of a disulfide dimer connected through interchain disulfide bonds, a covalent irreversible non-disulfide dimer, a non-covalent dimer, and mixtures thereof.
14. (currently amended) The ~~method of claim 1 use according to claim 4~~, wherein the ~~functional derivativesubstance~~ is a ~~chemical derivative of human growth hormone~~ chemically derivatized.
15. (currently amended) The ~~method of claim 14 use according to claim 14~~, wherein the ~~human growth hormone derivative~~ is selected from the group consisting of:
 - (a) the substance is acetylated at the N-terminus;

- (b) the substance is deaminated;
- (c) the substance is sulfoxidized at one or more methionine residues; and
- (d) the substance is derivatized at one or more amino acid side chains with a polyethylene glycol (PEG) moiety.

16. (canceled)

17. (canceled)

18. (currently amended) ~~The method of claim 1~~ ~~use according to any of the preceding claims~~, wherein the ~~growth hormone~~ substance is administered at a dosage selected from the group consisting of:

- (a) about 0.1 to 10 mg per person per day; or
- (b) about 0.5 to 6 mg per person per day;
- (c) about 1 mg per person per day;
- (d) a dosage administered daily;
- (e) a dosage administered every other day;
- (f) alternating daily dosages, wherein the first dosage is higher than the second dosage;
- (g) alternating daily dosages, wherein the first dosage is about 1 mg per person and the second dosage is about 0.5 mg per person;
- (h) about 6 mg per person;
- (i) about 5 mg per person; and
- (j) about 4.5 mg per person.

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

25. (currently amended) ~~Use according to~~ ~~The method of claim 4 or 2414~~, wherein the substance is derivatized ~~functional derivative comprises at least one moiety attached to one or more functional groups, which occur as~~ ~~at~~ one or more side chains ~~on the~~ of amino acid residues.

26. (canceled)

27. (canceled)

28. (currently amended) The method of Use according to claim 27, wherein the IGF is selected from IGF-I or IGF-II.

29. (currently amended) The method of claim 1 Use according to claims 27 or 28, wherein the substance is IGF and the patient is medicament further comprises and administered IGFBP (Insulin-like Growth Factor Binding Protein), for simultaneous, sequential, or separate use from the IGF.

30. (currently amended) Use according to The method of claim 29, wherein the IGFBP is IGFBP3.

31. (canceled)

32. (canceled)

33. (currently amended) The method of claim 1 The use according to any of the preceding claims, wherein the medicament substance is administered in a manner selected from the group consisting of:

- (a) the substance is administered subcutaneously;
- (b) the substance is administered intramuscularly; and
- (c) the substance is administered with an auto-injector.

34. (canceled)

35. (canceled)

36. (currently amended) The method of claim 1 wherein the nucleic acid is an expression Use of a vector for inducing and/or enhancing the endogenous production of a substance which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance which stimulates release or potentiates the activity of endogenous hGH for the preparation of a medicament for the treatment and/or prevention of a Parkinsonism-Plus Syndrome, in particular Multiple System Atrophy.

37. (currently amended) Use of a cell that has been genetically modified to produce a substance which binds to and initiates signaling of the human growth hormone (hGH) receptor or a substance which stimulates release or potentiates the activity of endogenous hGH for the preparation of a medicament A method for the treatment and/or prevention of a Parkinsonism-Plus Syndrome, in particular Multiple System Atrophy comprising administering to a person in

need thereof a cell, wherein the cell produces a substance capable of treating or preventing a Parkinsonism-Plus Syndrome according to the method of claim 1.

38. (canceled)

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 15, lines 20-26 with the following:

A short C-terminal hGH fragment had been described to retain a biological activity of hGH, see US 5,869,452. Therefore, the use of a C-terminal fragment of hGH is preferred according to the invention. Fragment hGH177–191, comprising at least amino acid residues 177 to 191 of hGH (LRIVQCRSVEGSCGF) (SEQ ID NO: 1) is particularly preferred in accordance with the present invention. Further preferred are derivatives of this peptide, such as the peptide variants described in US 6,335,319 or WO99/12969, e.g. cyclic peptides.